# PORTFOLIO

**Analysis of a Sport, Sport Skill, Anatomy, Biomechanics, Injury, Injury Prevention**

**Due Date:** TWO COPIES are due on Tuesday December 20, 2011

## Portfolio Presentation PSE 4U

*Present one letter from each of the five sections of the portfolio*
*Diagrams and Video*
*Clear Outline for Instruction i.e. length of time 12-20 min*
*Clarity of Class Presentation*

**Nt: Any photocopying or overheads that are needed I must have 1 day in advance**

| | | |
|---|---|---|
| 1) | Tuesday Jan 10 | Alex W, Cole Spero |
| 2) | Wednesday Jan 11 | Melissa, Dennis Brianski & Liz E |
| 3) | Thursday Jan 12 | Snow Day |
| 4) | Friday Jan 13 | Redmen Invitational- Senior Privs |
| 5) | Monday Jan 16 | Katya Ells, Jaden, Alex V |
| 5) | Tuesday Jan 17 | Rebecca, Michelle, Alicia, |
| 6) | Wednesday Jan 18 | Alaura, Liam, Emma |
| 7) | Thursday Jan 19 | Ashley, Cameron & Sam |
| 8) | Friday Jan 20 | Chris T, Matt M, Brianna |
| 9) | Monday Jan 23 | Katie D, Eva Bowers, Shannon & Chantal |
| 10) | Tuesday Jan 24 | |
| 11) | Wednesday Jan 25 | |

Jan 4-12:21 PM

*Choose a sport to research and choose a common Chronic Injury for this sport and the repeated action which causes it.*

***. History and Societal Factors***

**) History/Description of the sport**
Give a brief history/description of the sport. Include: country of origin, year, involvement in the Olympics, professional, amateur, recreational opportunities, type of equipment, types of fitness which are challenged by the sport, changes to the sport rules or equipment due to safety and injury prevention

**) Factors affecting participation**
Describe the socio-economic, gender and cultural factors affecting participation in this sport. Explain the costs involved in participation in this sport, does this have an effect on the types of participants, where globally the sport is played or most popular

**) Sport involvement**
List and explain who is most likely to get involved in this sport. Consider gender, age group, culture, economic class. Offer a reason for this broad or narrow group

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***. Motor Learning and Development***

**) Motor Learning**
Focusing on the action you have chosen which causes the injury. Apply your knowledge of phases of the skill to describe the entire action (example: golf swing - preliminary movement, backswing and recovery, force production, critical instant, follow through, recovery)

**) Repeated motion**
Explain where in the skill phase, and how, the overload or repeated motion leads to the injury.

***. Anatomy and Physiology***

**) Chronic injury**
Identify the common *chronic* injury you have chosen for this sport. Using your knowledge of correct anatomical terminology, describe this action causing the injury. Which tissue is specifically damaged due to the repeated action. Consider joint function and possible muscle pair imbalances.

**) Anatomy**
Describe the bones, muscles and joints involved in each of the (motor learning) phases. Using correct anatomical terminology, describe the muscles and their actions, as well as the types of contractions (eccentric/concentric/static) taking place in each of the phases.

***. Biomechanics***

**) Biomechanical Principles**
Using biomechanical principles, describe the actions involved in the mechanism of injury. Consider and apply Newton's laws of motion, levers, velocity, acceleration, stability of the joint, and force-movement relationship, etc.

***. Rehabilitation and Injury Prevention***

**Injury, Rehabilitation, and Healing**
Describe the injury in terms of tissue, degrees of damage, healing time, rehabilitation recommendations

**) Injury Prevention through Exercise Prescription**
Using you knowledge of exercise prescription and it's components, prescribe sport-specific stretches and exercises to prevent the injury, include components such as concentric, eccentric, static, isotonic, isokinetic, speed of movement, balance of muscle pairs, frequency and intensity. For each component you include, explain your decisions.

Dec 3-7:48 AM